

Dr. Duke's Phytochemical and Ethnobotanical Database

Chemicals Found in *Astragalus membranaceus*

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	ALANINE	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
14	ARGININE	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
112	ASCORBIC-ACID	Root	--	--		
2	ASPARAGINE	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
3	ASPARTIC-ACID	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
3	ASTRAMEMBRANIN-I	Plant	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
53	BETA-CAROTENE	Root	--	--		
47	BETA-SITOSTEROL	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
14	BETAINE	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
102	CAFFEIC-ACID	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
28	CALCIUM	Root	560	3500	-0.42742749848868644	

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14	CANAVANINE	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
77	CHLOROGENIC-ACID	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
20	CHOLINE	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
24	CHROMIUM	Root	0.3	0.8	-0.40048877739295385	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
2	COBALT	Root	0.4	2.5	-0.4909460027790993	
12	COPPER	Root	1	9	-0.30116857246091955	
57	COUMARIN	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
1	D-GLUCOSE	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
61	FERULIC-ACID	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
23	FOLIC-ACID	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
16	FORMONONETIN	Root	--	--		
22	GABA	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	GLUTAMIC-ACID	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
6	IRON	Root	3.2	20	-0.4125973953033244	
4	ISOFERULIC-ACID	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
28	ISOLIQUIRITIGENIN	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
11	ISORHAMNETIN	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
75	KAEMPFEROL	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
2	L-3-HYDROXY-9-METHOXYPTEROCARPAN	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
27	LINOLEIC-ACID	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
65	MAGNESIUM	Root	800	5000	1.297512854456367	
14	MANGANESE	Root	--	--		
2	MOLYBDENUM	Root	0.1	10	2.6325714919134473	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
39	NIACIN	Root	--	--		
4	PHOSPHORUS	Root	104	650	-0.5038891291778125	

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14	POTASSIUM	Root	1280	8000	-0.5695891878357887	
176	QUERCETIN	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
7	RHAMNOCITRIN	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
15	RIBOFLAVIN	Root	0.4	2.5	-0.3445770066726076	
60	SELENIUM	Root	0.2	1	-0.29131634494743897	
4	SILICON	Root	3.2	20	-0.2510309186692663	
1	SODIUM	Root	64	400	-0.32652648701580106	
14	SUCROSE	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
77	ZINC	Root	0.8	5	-0.8399576796962069	